State of California – The Resources Agency ARNOLD SCHWARZENEGGER, *Governor*

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October 1, 2007

Mr. John Voccio/George Farra
Southern California Public Utilities Commission/Angeles National Forest
c/o Aspen Environmental Group
30423 Canwood Street, Suite 215
Agoura Hills, CA 91301

Notice of Preparation of a
Environmental Impact Report for the
Tehachapi Renewable Transmission Project
SCH # 2007061015, Los Angeles, Kern and San Bernardino Counties

Dear Ms. Kirchner:

The Department of Fish and Game (Department) reviewed the above-referenced Notice of Preparation (NOP) for the Tehachapi Renewable Transmission Project (TRTP) relative to impacts to biological resources. The California Public Utilities Commission (CPUC) as lead state agency and the USDA Forest Service (Forest Service) as lead federal agency will direct the preparation of a joint Draft Environmental Impact Report (DEIR) and Draft Environmental Impact Statement (DEIS), respectively, for the TRTP proposed by Southern California Edison (SCE).

The TRTP will provide transmission facilities located within Kern, Los Angeles and San Bernardino Counties which are needed to interconnect and deliver to Southern California, the output from new electrical generation facilities being developed in the Tehachapi reach. The TRTP upgrades as described below are separated into eight distinct segments and would be primarily constructed within existing rights-of-way (ROW), with some exceptions where ROWs will need to be acquired.

Segment 4 - Construct a new 16-mile Whirlwind-Antelope 500 kV Transmission Line (T/L), and two new 4 mile single-circuit Cottonwind-Whirlwind 220 kV T/L: Whirlwind Substation will be connected to SCE's existing Antelope Substation in west Lancaster by a new 16-mile, single-circuit 500 kV T/L. The proposed route parallels the western side of the current SCE Transmission ROW (Midway-Vincent No. 3 500 kV) from the Whirlwind Substation to Antelope Substation. SCE will acquire 200 feet of additional ROW adjacent to the existing T/Ls. Whirlwind Substation will be connected to the 220/66 kV Cottonwind Substation, which is proposed by a private wind developer and undergoing review for permits through Kern County. The proposed location of Cottonwind Substation is approximately four miles northwest of the proposed Whirlwind Substation. Two new 4-mile, single-circuit 220 kV T/Ls will be constructed in 200 feet of new ROW that SCE will acquire adjacent to the existing T/Ls.
Segment 5 - Construct a new 18-mile transmission line: A new 18-mile single-circuit 500 kV T/L will be constructed between SCE's existing Antelope Substation in west Lancaster to SCE's

existing Vincent Substation near Acton. In order to maximize the use of existing T/L ROW, an existing 220 kV T/L and portions of another 220 kV T/L will be removed, and then be replaced by the new 500 kV line. No new ROW will be required.

Segment 6 - Construct a new 27-mile transmission line and a new 5-mile T/L: A new 27-mile 500 kV single-circuit T/L will be constructed between SCE's existing Vincent Substation near Acton and the southern edge of the Angeles National Forest (ANF) near the city of Duarte. The line will replace approximately 27 miles of the existing 220 kV T/L on the same ROW. The replacement line will be connected to the existing Rio Hondo Substation in Irwindale using a portion of an existing line to complete the circuit. No new ROW will be required. A new 5-mile 500 kV single-circuit transmission line will be constructed between SCE's existing Vincent Substation and the northern border of the ANF. The line will replace approximately five miles of 220 kV line on the same ROW. No new ROW will be required.

Segment 7 - Construct a new 16-mile transmission line and relocate several 66 kV lines: A new 16-mile double-circuit 500 kV T/L will be constructed from the ANF near the city of Duarte to SCE's existing Mesa Substation area in Monterey Park, near East Pomona Boulevard. From the 210 Freeway to Avocado Heights, the current transmission corridor parallels the 605 Freeway. Prior to construction, a 16-mile, 220 kV single-circuit transmission tower along the 605 Freeway will be removed. The new line will be built on the vacated ROW. No new ROW will be required. In order to make room for the new 500 kV construction design required for this segment, various lower voltage (66 kV) subtransmission lines will be relocated within the existing ROW or in the public ROW between SCE's existing Rio Hondo Substation in Irwindale and SCE's existing Mesa Substation in Monterey Park.

Segment 8 - Construct a new 32 mile transmission line and a new 7-mile 220 kV transmission line and remove a portion of an existing double-circuit 220 kV T/L: A new double-circuit 500 kV T/L will be constructed from SCE's existing Mesa Substation area in Monterey Park to SCE's existing Chino Substation in the city of Chino, then into SCE's existing Mira Loma Substation in the city of Ontario. In order to utilize the existing transmission corridor between the two substations, a single-circuit 220 kV T/L will be removed to make room for the new line in the existing ROW. The ROW will be widened by 100 feet for approximately three miles west of the intersection of Fullerton Road and Pathfinder Road. A minor rerouting of existing 220 kV lines will be necessary near Fullerton Road. A new double-circuit, 220 kV line will be constructed from SCE's existing Chino Substation in the city of Chino to SCE's existing Mira Loma Substation in the city of Ontario. Prior to the construction, two existing, single-circuit 220 kV T/Ls will be removed to make room for the new line in the existing ROW. Approximately one-half mile of new ROW, 150 feet wide, west of Haven Avenue adjacent to the current ROW will be required. Between Chino and Mira Loma substations, one existing double-circuit 220 kV T/L will be removed. In addition, various subtransmission and distribution lines would require relocation within existing or public ROWs.

Segment 9 - Substation Upgrades: This aspect of TRTP includes the following substation upgrades:

- Expand and upgrade existing Antelope and Vincent Substations to accommodate new 500 kV and 220 kV equipment
- Upgrade existing Mesa and Gould Substations to accommodate new 220 kV equipment
- Upgrade existing Mira Loma Substation to accommodate new 500 kV equipment
- Construct new Whirlwind Substation to collect energy from proposed wind farms and bring it into the SCE transmission system, a new 500/220 kV substation (to be named Whirlwind) will be constructed west of Rosamond. Located approximately 16 miles northwest of the existing Antelope Substation, at 92nd Street West and Avenue J in west Lancaster, Whirlwind Substation will be located adjacent to the existing SCE transmission corridor (Midway-Vincent 500 kV line). SCE has identified three possible sites for the substation along the route, a primary and two alternate locations. The proposed locations are near 170th Street West, south of Rosamond Boulevard. SCE will acquire approximately 80 acres of land for the substation.

A new switch-rack, two transformer banks, two new capacitor banks and a Static VAR Compensator will be installed at SCE's existing Antelope Substation in west Lancaster Replacement of an existing transformer bank, expansion of the existing switch-rack, two new capacitor banks and new circuit breakers will be constructed at the existing Vincent Substation near Acton. If necessary for expansion, SCE may need to acquire new land adjacent to the substation.

Segment 10 - Construct a new 16.5 -mile transmission line:
The proposed Whirlwind Substation west of Rosamond and the Windhub Substation west of Mojave (which will be built during Segment 3 of SCE's Antelope Transmission Project, and which has already undergone separate review at the CPUC) will be connected by constructing a new 16.5-mile, single-circuit 500 kV T/L. Approximately 330 feet of new ROW will be required for this T/L.

Segment 11 - Replace approximately 19-miles of single circuit 220-kV transmission line with a single circuit 500-kV transmission line from the Vincent Substation to the Gould Substation: A second transmission line, approximately 18 miles of 220-kV circuit, would be installed on the vacant side of the existing double-circuit 220-kV lattice steel towers (now carrying the Eagle Rock-Mesa 220-kV transmission line) between the Gould Substation and the Mesa Substation. This segment would primarily use existing right-of-way but would require expanded right-of-way for approximately three miles (north of the Gould Substation on the west side of the corridor) within the Angeles National Forest.

The Department recommends the following information be considered and included by CPUC in the DEIR to facilitate biological impact assessment for the TRTP and to serve as planning guidelines which facilitate Department goals for the protection of Public Trust Resources under CEQA.

1. A complete, recent assessment of flora and fauna within and adjacent to the project area, with particular emphasis upon identifying endangered, threatened, and locally unique species and sensitive habitats (Attachment 1).

   a. A thorough recent assessment of rare plants and rare natural communities, following the Department's Guidelines for Assessing Impacts to Rare Plants and Rare Natural Communities.

   b. A complete, recent assessment of sensitive fish, wildlife, reptile, and amphibian species. Seasonal variations in use of the project area should also be addressed. Recent, focused, species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with the Department and U.S. Fish and Wildlife Service.

   c. Rare, threatened, and endangered species to be addressed should include all those which meet the California Environmental Quality Act (CEQA) definition (see CEQA Guidelines, Section 15380).

   d. The Department's Wildlife Habitat Data Analysis Branch in Sacramento should be contacted at (916) 322-2493 to obtain current information on any previously reported sensitive species and habitats, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code. Also, any Significant Ecological Areas (SEAs) or Environmentally Sensitive Habitats (ESHs) or any areas that are considered sensitive by the local jurisdiction that are located in or adjacent to the project area must be addressed.

2. A thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts. This discussion should focus on maximizing avoidance, and minimizing impacts.

   a. CEQA Guidelines, Section 15125(a), direct that knowledge of the regional setting is critical to an assessment of environmental impacts and that special emphasis should be placed on resources that are rare or unique to the region.

   b. Project impacts should also be analyzed relative to their effects on off-site habitats and populations. Specifically, this should include nearby public lands, open space, adjacent natural habitats, and riparian ecosystems. Impacts to and maintenance of wildlife corridor/movement areas, including access to undisturbed habitat in adjacent areas are of concern to the Department and should be fully evaluated and provided. The analysis should also include a discussion of the potential for impacts resulting from such effects as increased vehicle traffic, outdoor artificial lighting, noise and vibration.

   c. A cumulative effects analysis should be developed as described under CEQA Guidelines, Section 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.

   d. Impacts to migratory wildlife affected by the project should be fully evaluated including proposals to removal/disturb native and ornamental landscaping and other nesting habitat for native birds. Impact evaluation may also include such elements as migratory butterfly roost sites and neo-tropical bird and waterfowl stop-over and staging sites. All migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R. Section 10.13). Sections 3503, 3503.5 and 3513 of the California Fish and Game Code prohibit take of birds and their active nests, including raptors and other migratory nongame birds as listed under the MBTA.

   e. Impacts to all habitats from City or County required Fuel Modification Zones (FMZ) should be analyzed. Areas slated as mitigation for loss of habitat shall not occur within the FMZ.

   f. Proposed project activities (including disturbances to vegetation) should take place outside of the breeding bird season (February 1- September 1) to avoid take (including disturbances which would cause abandonment of active nests containing eggs and/or young). If project activities cannot avoid the breeding bird season, nest surveys should be conducted and active nests should be avoided and provided with a minimum buffer as determined by a biological monitor (the Department recommends a minimum 500-foot buffer for all active raptor nests).

3. A range of alternatives should be analyzed to ensure that alternatives to the proposed project are fully considered and evaluated. A range of alternatives which avoid or otherwise minimize impacts to sensitive biological resources including wetlands/riparian habitats, alluvial scrub, coastal sage scrub, Joshua tree woodlands, etc. should be included. Specific alternative locations should also be evaluated in areas with lower resource sensitivity where appropriate.

   a. Mitigation measures for project impacts to sensitive plants, animals, and habitats should emphasize evaluation and selection of alternatives which avoid or otherwise minimize project impacts. Compensation for unavoidable impacts through acquisition

b. The Department considers Rare Natural Communities as threatened habitats having both regional and local significance. Thus, these communities should be fully avoided and otherwise protected from project-related impacts (Attachment 2).

c. The Department generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species. Department studies have shown that these efforts are experimental in nature and largely unsuccessful.

4. A California Endangered Species Act (CESA) Permit must be obtained, if the project has the potential to result in "take" of species of plants or animals listed under CESA, either during construction or over the life of the project. CESA Permits are issued to conserve, protect, enhance, and restore State-listed threatened or endangered species and their habitats. Early consultation is encouraged, as significant modification to the proposed project and mitigation measures may be required in order to obtain a CESA Permit. Revisions to the Fish and Game Code, effective January 1998, require that the Department issue a separate CEQA document for the issuance of a CESA permit unless the project CEQA document addresses all project impacts to listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of a CESA permit. For these reasons, the following information is requested:

a. Biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA Permit.

b. A Department-approved Mitigation Agreement and Mitigation Plan are required for plants listed as rare under the Native Plant Protection Act.

5. The Department opposes the elimination of watercourses (including concrete channels) and/or the canalization of natural and manmade drainages or conversion to subsurface drains. All wetlands and watercourses, whether intermittent, ephemeral, or perennial, must be retained and provided with substantial setbacks which preserve the riparian and aquatic habitat values and maintain their value to on-site and off-site wildlife populations. The Department recommends a minimum natural buffer of 100 feet from the outside edge of the riparian zone on each side of a drainage.

a. The Department requires a Streambed Alteration Agreement (SAA), pursuant to Section 1600 et seq. of the Fish and Game Code, with the applicant prior to any direct or indirect impact to a lake or stream bed, bank or channel or associated riparian resources. The Department's issuance of a SAA may be a project that is subject to CEQA. To facilitate our issuance of the Agreement when CEQA applies, the Department as a responsible agency under CEQA may consider the local jurisdiction's (Lead Agency) document for the project. To minimize additional requirements by the Department under CEQA the document should fully identify the potential impacts to the lake, stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for issuance of the Agreement. Early consultation is recommended, since modification of the proposed project may be required to avoid or reduce impacts to fish and wildlife resources.

6. The project should incorporate design features and siting standards that, at a minimum, meet those defined by the American Power Line Interaction Committee (http://www.aplic.org/) for reducing or eliminating avian collision and electrocution risk from power lines. The Department supports post-construction monitoring of transmission

and distribution lines for the purposes of 1) detection of high electrocution or collision risk line segments or poles, 2) assessing the efficacy of installed diverters, perch guards, and other preventative facility measures, and 3) establishing baseline collision and electrocution impact information to inform adaptive management for further reducing impacts and risks.

Thank you for this opportunity to provide comment. Please contact Mr. Scott Harris, Environmental Scientist, at (626) 797-3170 if you should have any questions and for further coordination on the proposed TRTP.

Sincerely,

Kevin Hunting
Acting Regional Manager
South Coast Region

Attachments (2)

cc: Mr. Michael Mulligan, San Diego
Mr. Curt Taucher, Los Alamitos
Mr. Bill Loudermilk, Fresno
Ms. Terri Dickerson, Laguna Niguel

bcc: Mr. Scott Harris, Pasadena
Ms. Annette Tenneboe, Fresno
Mr. Scott Dawson, Ontario
HCP-Chro, Department of Fish and Game
State Clearinghouse, Sacramento

SPH:sph
spharris/SCPU/TRTP NOP/2007

Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities

State of California
THE RESOURCES AGENCY
Department of Fish and Game
December 9, 1983
Revised May 8, 2000

The following recommendations are intended to help those who prepare and review environmental documents determine **when** a botanical survey is needed, **who** should be considered qualified to conduct such surveys, **how** field surveys should be conducted, and **what** information should be contained in the survey report. The Department may recommend that lead agencies not accept the results of surveys that are not conducted according to these guidelines.

1. Botanical surveys are conducted in order to determine the environmental effects of proposed projects on all rare, threatened, and endangered plants and plant communities. Rare, threatened, and endangered plants are not necessarily limited to those species which have been "listed" by state and federal agencies but should include any species that, based on all available data, can be shown to be rare, threatened, and/or endangered under the following definitions:

A species, subspecies, or variety of plant is "endangered" when the prospects of its survival and reproduction are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, over-exploitation, predation, competition, or disease. A plant is "threatened" when it is likely to become endangered in the foreseeable future in the absence of protection measures. A plant is "rare" when, although not presently threatened with extinction, the species, subspecies, or variety is found in such small numbers throughout its range that it may be endangered if its environment worsens.

Rare natural communities are those communities that are of highly limited distribution. These communities may or may not contain rare, threatened, or endangered species. The most current version of the California Natural Diversity Database's List of California Terrestrial Natural Communities may be used as a guide to the names and status of communities.

2. It is appropriate to conduct a botanical field survey to determine if, or to the extent that, rare, threatened, or endangered plants will be affected by a proposed project when:

a. Natural vegetation occurs on the site, it is unknown if rare, threatened, or endangered plants or habitats occur on the site, and the project has the potential for direct or indirect effects on vegetation; or
b. Rare plants have historically been identified on the project site, but adequate information for impact assessment is lacking.

3. Botanical consultants should possess the following qualifications:

a. Experience conducting floristic field surveys;
b. Knowledge of plant taxonomy and plant community ecology;
c. Familiarity with the plants of the area, including rare, threatened, and endangered species;
d. Familiarity with the appropriate state and federal statutes related to plants and plant collecting; and,
e. Experience with analyzing impacts of development on native plant species and communities.

4. Field surveys should be conducted in a manner that will locate any rare, threatened, or endangered species that may be present. Specifically, rare, threatened, or endangered plant surveys should be:

a. Conducted in the field at the proper time of year when rare, threatened, or endangered species are both evident and identifiable. Usually, this is when the plants are flowering.

When rare, threatened, or endangered plants are known to occur in the type(s) of habitat present in the project

area, nearby accessible occurrences of the plants (reference sites) should be observed to determine that the species are identifiable at the time of the survey.

b. Floristic in nature. A floristic survey requires that every plant observed be identified to the extent necessary to determine its rarity and listing status. In addition, a sufficient number of visits spaced throughout the growing season are necessary to accurately determine what plants exist on the site. In order to properly characterize the site and document the completeness of the survey, a complete list of plants observed on the site should be included in every botanical survey report.

c. Conducted in a manner that is consistent with conservation ethics. Collections (voucher specimens) of rare, threatened, or endangered species, or suspected rare, threatened, or endangered species should be made only when such actions would not jeopardize the continued existence of the population and in accordance with applicable state and federal permit requirements. A collecting permit from the Habitat Conservation Planning Branch of DFG is required for collection of state-listed plant species. Voucher specimens should be deposited at recognized public herbaria for future reference. Photography should be used to document plant identification and habitat whenever possible, but especially when the population cannot withstand collection of voucher specimens.

d. Conducted using systematic field techniques in all habitats of the site to ensure a thorough coverage of potential impact areas.

e. Well documented. When a rare, threatened, or endangered plant (or rare plant community) is located, a California Native Species (or Community) Field Survey Form or equivalent written form, accompanied by a copy of the appropriate portion of a 7.5 minute topographic map with the occurrence mapped, should be completed and submitted to the Natural Diversity Database. Locations may be best documented using global positioning systems (GPS) and presented in map and digital forms as these tools become more accessible.

5. Reports of botanical field surveys should be included in or with environmental assessments, negative declarations and mitigated negative declarations, Timber Harvesting Plans (THPs), EIR's, and EIS's, and should contain the following information:

a. Project description, including a detailed map of the project location and study area.
b. A written description of biological setting referencing the community nomenclature used and a vegetation map.
c. Detailed description of survey methodology.
d. Dates of field surveys and total person-hours spent on field surveys.
e. Results of field survey including detailed maps and specific location data for each plant population found. Investigators are encouraged to provide GPS data and maps documenting population boundaries.
f. An assessment of potential impacts. This should include a map showing the distribution of plants in relation to proposed activities.
g. Discussion of the significance of rare, threatened, or endangered plant populations in the project area considering nearby populations and total species distribution.
h. Recommended measures to avoid impacts.
i. A list of all plants observed on the project area. Plants should be identified to the taxonomic level necessary to determine whether or not they are rare, threatened or endangered.
j. Description of reference site(s) visited and phenological development of rare, threatened, or endangered plant(s).
k. Copies of all California Native Species Field Survey Forms or Natural Community Field Survey Forms.
l. Name of field investigator(s).
m. References cited, persons contacted, herbaria visited, and the location of voucher specimens.

Sensitivity of Top Priority Rare Natural Communities in Southern California

Sensitivity rankings are determined by the Department of Fish and Game, California Natural Diversity Data Base and based on either number of known occurrences (locations) and/or amount of habitat remaining (acreage). The three rankings used for these top priority rare natural communities are as follows:

S1.# Fewer than 6 known locations and/or on fewer than 2,000 acres of habitat remaining.

S2.# Occurs in 6-20 known locations and/or 2,000-10,000 acres of habitat remaining.

S3.# Occurs in 21-100-known locations and/or 10,000-50,000 acres of habitat remaining.

The number to the right of the decimal point after the ranking refers to the degree of threat posed to that natural community regardless of the ranking. For example:

S1.1 = very threatened
S2.2 = threatened
S3.3 = no current threats known

Sensitivity Rankings (February 1992)

Rank	Community Name
S1.1	Mojave Riparian Forest
	Sonoran Cottonwood Willow Riparian
	Mesquite Bosque
	Elephant Tree Woodland
	Crucifixion Thorn Woodland
	Allthorn Woodland
	Arizonan Woodland
	Southern California Walnut Forest
	Mainland Cherry Forest
	Southern Bishop Pine Forest
	Torrey Pine Forest
	Desert Mountain White Fir Forest
	Southern Dune Scrub
	Southern Coastal Bluff Scrub
	Maritime Succulent Scrub
	Riversidean Alluvial Fan Sage Scrub
	Southern Maritime Chaparral
	Valley Needlegrass Grassland
	Great Basin Grassland
	Mojave Desert Grassland
	Pebble Plains
	Southern Sedge Bog
	Cismontane Alkali Marsh

S1.2	Southern Foredunes Mono Pumice Flat Southern Interior Basalt Flow Vernal Pool
S2.1	Venturan Coastal Sage Scrub Diegan Coastal Sage Scrub Riversidean Upland Coastal Sage Scrub Riversidean Desert Sage Scrub Sagebrush Steppe Desert Sink Scrub Mafic Southern Mixed Chaparral San Diego Mesa Hardpan Vernal Pool San Diego Mesa Claypan Vernal Pool Alkali Meadow Southern Coastal Salt Marsh Coastal Brackish Marsh Transmontane Alkali Marsh Coastal and Valley Freshwater Marsh Southern Arroyo Willow Riparian Forest Southern Willow Scrub Modoc-Great Basin Cottonwood Willow Riparian Modoc-Great Basin Riparian Scrub Mojave Desert Wash Scrub Engelmann Oak Woodland Open Engelmann Oak Woodland Closed Engelmann Oak Woodland Island Oak Woodland California Walnut Woodland Island Ironwood Forest Island Cherry Forest Southern Interior Cypress Forest Bigcone Spruce-Canyon Oak Forest
S2.2	Active Coastal Dunes Active Desert Dunes Stabilized and Partially Stabilized Desert Dunes Stabilized and Partially Stabilized Desert Sandfield Mojave Mixed Steppe Transmontane Freshwater Marsh Coulter Pine Forest Southern California Fellfield White Mountains Fellfield
S2.3	Bristlecone Pine Forest Limber Pine Forest